



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,546	09/27/2001	Yasuo Yamamoto	110704	9227
25944	7590	06/17/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PATEL, NITIN	
			ART UNIT	PAPER NUMBER
			2673	7

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/963,546

**Applicant(s)**

YAMAMOTO ET AL.

**Examiner**

Nitin Patel

**Art Unit**

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4,9 are rejected under 35 U.S.C. 102(e) as being anticipated by Hou et al., (U.S. Patent No. 6,113,810).

As per claim 1, Hou shows an image display medium (element 10 In Fig.1 and In Col.3 lines 14-16) having a pair of facing substrates (elements 18,20 In Fig.1 and In col.3 lines 17-19); and at least two kinds of particles (elements 22 and 24 In Fig.1 and In col.3 lines 22-25) sealed in a space between a pair of substrates (elements 18,20 in fig.1), at least two kinds of particles (elements 22,24 In fig.1), each having only a single color (first particle having a first color and second particle having a second color In Abstract and In col.3 lines 32-35), have a characteristic that at least one kind of them is positively chargeable(In col.3 lines 46-56) and at least one other kind of them is negatively chargeable and the particles chargeable positively and negatively are of colors different from each other(In abstract and In col.3 lines 28-38 and lines 40-55 and In Col.4 lines 15-22) and a charge controller is internally added to one or both of the particles chargeable positively and negatively(In Col.3 lines 45-65 and Col.4 lines 1-12).

As per claim 2, Hou shows a charge controller is colorless of less coloring capability (In Col.7 lines 62-67 to Col.8 lines 1-10).

As per claim 3, Hou shows image display medium having one of particles chargeable positively and negatively is white (In col.3 lines 40-45).

As per claim 4, Hou shows white particles contain a colorant and the colorant is titanium oxide (in col.3 lines 60-67 and Col.4 lines 15-24).

As per claim 9, Hou shows an image generation unit generates an electric field in accordance with images disposed between the pair of substrates 9 (In Col.4 lines 10-12).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hou et al., (U.S. Patent No. 6,113,810) in view of Nakanishi et al., (U.S. Patent No. 5,411,398).

As per claim 5, Hou shows an image display medium (element 10 In Fig.1 and In Col.3 lines 14-16) having a pair of facing substrates (elements 18,20 In Fig.1 and In col.3 lines 17-19); and at least two kinds of particles (elements 22 and 24 In Fig.1 and In col.3 lines 22-25) sealed in a space between a pair of substrates (elements 18,20 in fig.1), at least two kinds of particles (elements 22,24 In fig.1), each having only a single color (first particle having a first color and second particle having a second color In

Abstract and In col.3 lines 32-35), have a characteristic that at least one kind of them is positively chargeable(In col.3 lines 46-56) and at least one other kind of them is negatively chargeable and the particles chargeable positively and negatively are of colors different from each other(In abstract and In col.3 lines 28-38 and lines 40-55 and In Col.4 lines 15-22) and a charge controller is internally added to one or both of the particles chargeable positively and negatively(In Col.3 lines 45-65 and Col.4 lines 1-12).

Hou does not teach a non-magnetic particles having frictional chargeability.

Nakanishi shows a non-magnetic particles having frictional chargeability 9In abstract and in col.7 lines 54-67 to Col.8 lines 10-25). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to allow the teaching of Nakanishi's non magnetic particles in a display system into Hou's display device because it would have attracted the light absorptive non magnetic particles shifted by attraction from black surface of the display to invert the position of the light reflective non magnetic particles in corresponding area to forming characters and images.

As per claims 6-8 Hou does not show a non-magnetic particles in an insulative substrates connected to a power source. Nakanishi shows non-magnetic particles in insulative substrates connected to a power source (In Col.5 lines 54-60 and lines 62-67 and Col.6 lines 32-42 and In Col.11lines 35-46 a controller similar to power source to magnetize the particles in a display). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Nakanishi's into display device of Hou's because it would have optimized to improve the image

Art Unit: 2673

quality of the display by intensify the contrast of brightness and darkness of the images on the display which caused by positional relationship particles.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 703-308-7024. The examiner can normally be reached on 8:00-5:00.

Art Unit: 2673

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP

June 10, 2004

  
Amare Mengistu  
Primary Examiner